

**REMARKS**

This is a full and timely response to the Office Action mailed April 9, 2007, submitted concurrently with a two month Extension of Time to extend the due date for response to September 10, 2007.

Claims 1, 3-8 and 10 have been amended to more particularly define the present invention and to put the claims in better form under U.S. practice. Further, new claims 14 and 15 have been added to further protect specific embodiments of the present invention. In particular, claim 1 has been amended to incorporate the limitations of claim 2. Lastly, claims 2, 9 and 11-13 are canceled without prejudice or disclaimer to their underlying subject matter. Support for the claim amendments and new claims can be found variously throughout the specification and the original claims. Thus, claims 1, 3-8, 10, 14 and 15 are currently pending in this application.

In view of this Amendment, Applicant believes that all pending claims are in condition for allowance. Reexamination and reconsideration in light of the following remarks is respectfully requested.

**Rejection under 35 U.S.C. §112**

Claims 1-13 are rejected under 35 U.S.C. §112, second paragraph, for alleged indefiniteness. Applicant has amended the claims to address each issue raised by the Examiner. Applicant believes that in view of these amendments, the pending claims are definite under 35 U.S.C. §112, second paragraph.

**Rejections under 35 U.S.C. §102 and §103**

Claim 1 is rejected under 35 U.S.C. §102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly being obvious over Vehof et al. (reference CA of the PTO-1449 filed May 23, 2005). This rejection has been overcome by the incorporation of the limitations of non-rejected claim 2 into claim 1. Thus, withdrawal of this rejection is respectfully requested.

Claims 2 and 10 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over

Vehof et al. in view of Ducheyne (U.S. Patent No. 5,030,233) and White et al. (U.S. Patent No. 3,890,107) and if necessary, in further view of Okimatsu et al. (EP 0 591 976 A1). Further, claims 3-9 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over the references previously cited and further in view of Kuboki et al. (reference CB of the PTO-1449 filed May 23, 2005 and U.S. Patent No. 4,812,404). Applicants respectfully traverse these rejections.

To establish a *prima facie* case of obviousness, the following three criteria must be satisfied. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally and mostly importantly, the prior art references, in combination, must teach or suggest all the claim limitations. Here, in this case, none of the cited references, in the combination outlined by the Examiner, teach or suggest all of the claim limitations with particular emphasis on the limitation “*an implant made of titanium or titanium alloy, and a titanium or titanium alloy fiber fixed at the periphery of the implant*”, “*wherein said fiber are accumulated in disorder to form a layer comprising a growth space for biological tissue from the surface of said layer to inside of said layer*”, and “*wherein said implant and said titanium or titanium alloy fibers are sintered together in vacuum so that the fibers are fused or fixed to each other at their crossing points or contacting points, and the fibers and the implant are fused or fixed to each other at their contacting point*”.

More specifically, based on Applicant's thorough review of the cited references, Applicant believes that none of the cited references discloses the claimed implant material where the implant (i.e. substrate) and the fibers are fused or fixed (chemically united) by vacuum sintering. Because the implant and the fiber layer are fused or fixed by vacuum sintering, a very high bonding strength exists between the implant and the tissue due to it being induced to the fiber layer. As a result, fractures which typically form in the prior art along the border between the implant (substrate) and induced tissue is prevented even if a large external force such as biting is constantly applied.

Thus, for these reasons, withdrawal of these rejections is respectfully requested.

Claims 11-13 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over

Application No.: 10/522,901

Docket No.: AKY-0022

Vehof et al. in view of Kuboki et al. (both references). This rejection has been rendered moot by the cancellation of the rejected claims.

### CONCLUSION

For the foregoing reasons, all the claims now pending in the present application are believed to be clearly patentable over the outstanding rejections. Accordingly, favorable reconsideration of the claims in light of the above remarks is courteously solicited. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

Dated: September 10, 2007

Respectfully submitted,

By 

Lee Cheng

Registration No.: 40,949

RADER, FISHMAN & GRAUER PLLC  
1233 20th Street, N.W.  
Suite 501  
Washington, DC 20036  
(202) 955-3750  
Attorneys for Applicant

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 180013 for any such fees; and applicant(s) hereby petition for any needed extension of time.